Compliance Date for Stationary RICE: August 16, 2004 or startup, whichever is later

Compliance Timeline For New or Reconstructed Sources

Startup occurs before August 16, 2004

- ***August 16, 2004:*** Compliance Date
- ***December 13, 2004:*** Deadline for submitting the initial notification to EPA.
- ***December 14, 2004:*** Deadline for submitting the notification of performance test or performance evaluation for CEMS.
- ***January 31, 2005:*** Deadline for submitting first semiannual compliance report for the period from August 16, 2004 to December 31, 2004.
- ***February 12, 2005:*** Deadline for conducting the performance test or performance evaluation for CEMS.
- ***March 14, 2005:*** Deadline for submitting the notification of compliance status if using CEMS.
- ***April 13, 2005:*** Deadline for submitting the notification of compliance status. This notification must include the performance test results if a performance test is conducted.
- ***July 31, 2005:*** Deadline for submitting second semiannual compliance report for the period from January 1, 2005 through June 30, 2005.
- ***Once per month:*** Measure pressure drop across the catalyst once per month to demonstrate compliance with the pressure drop operating limit.

Startup occurs on or after August 16, 2004

- ***Compliance Date:*** Date of startup
- ***Initial Notification:*** no later than 120 days after startup
- ***Notification of performance test or performance evaluation for CEMS:*** 60 days prior to the performance test or performance evaluation
- ***Conduct performance test or performance evaluation for CEMS:*** 180 days after startup
- ***Notification of compliance status if using CEMS:*** 30 days after the performance evaluation
- ***Notification of compliance status if not using CEMS:*** 60 days after the performance test.
- ***Semiannual compliance report:*** July 31 or January 31, whichever date follows the end of the first calendar half after startup and semiannually thereafter.
- ***Once per month:*** Measure pressure drop across the catalyst once per month to demonstrate compliance with the pressure drop operating limit.

For More Information

The final rule was published in the *Federal Register* on June 15, 2004. Copies of the rule and other materials are located at EPA's Stationary Reciprocating Internal Combustion Engine web site:
http://www.epa.gov/ttn/atw/rice/ricepg.html

You can also contact your regional EPA air toxics office at the following numbers:

Address	States	Website/ Phone Number
Region 1 1 Congress Street Suite 1100 Boston, MA 02114-2023	CT, MA, ME, NH, RI, VT	www.epa.gov/region1 (888) 372-7341
Region 2 290 Broadway New York, NY 10007-1866	NJ, NY, PR	www.epa.gov/region2 (212) 637-3000
Region 3 1650 Arch Street Philadelphia, PA 19103-2029	DE, MD, PA, VA, WV, DC	www.epa.gov/region3 (800) 438-2474 (215) 814-3297
Region 4 Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303-3104	FL, NC, SC, KY, TN, GA, AL, MS	www.epa.gov/region4 (800) 241-1754
Region 5 77 W. Jackson Blvd Chicago, IL 60604	IL, IN, MI, WI, MN, OH	www.epa.gov/region5 (800) 621-8431
Region 6 1445 Ross Avenue Suite 1200 Dallas, TX 75202	AR, LA, NM, OK, TX	www.epa.gov/region6 (800) 887-6063* (214) 665-6444
Region 7 901 N. 5th Street Kansas City, KS 66101	IA, KS, MO, NE	www.epa.gov/region7 (800) 223-0425
Region 8 999-18th St. Suite 300 Denver, CO 80202-2466	CO, MT, ND, SD, UT, WY	www.epa.gov/region8 (800) 227-8917* (303) 312-6312
Region 9 75 Hawthorne St., San Francisco, CA 94105	CA, AZ, HI, NV	www.epa.gov/region9 (415) 947-8000
Region 10 1200 6th Avenue Seattle, WA 98101	AK, ID, WA, OR	www.epa.gov/region10 (800) 424-4372* (206) 553-1200

* For sources within the region, only.

United States Environmental Protection Agency
July 2004
www.epa.gov/ttn/atw/rice/ricepg.html
Office of Air Quality Planning & Standards (E143-02)

EPA

Stationary Reciprocating Internal Combustion Engine NESHAP (Subpart ZZZZ)

An Overview of the Final Rule for Spark Ignition Two-Stroke Lean Burn Engines

New EPA air emission standards may affect your spark ignition two-stroke lean burn, stationary reciprocating internal combustion engine. This brochure does not provide information regarding other engine types that may be subject to this rule.

You Are Affected If…

- You operate a new or reconstructed spark ignition, two-stroke lean burn (2SLB) stationary reciprocating internal combustion engine (RICE) with a site rating of greater than 500 brake horsepower; AND

- Your facility is a major source of Hazardous Air Pollutants (HAP). A major source emits 10 tons per year (tpy) or more of one HAP or 25 tpy or more of all HAP combined.
  - ⇒ Major source status is determined for the entire contiguous facility
  - ⇒ There are special provisions for major source determinations at oil and gas production facilities and natural gas transmission and storage facilities.

Do I Have an Existing, New or Reconstructed RICE?

If your engine ...	Then you have...
Commenced construction before December 19, 2002	An ***existing*** stationary RICE
Commenced construction on or after December 19, 2002	A ***new*** stationary RICE
Commenced reconstruction on or after December 19, 2002 AND meets the definition of reconstruction (see 40 CFR 63.2)	A ***reconstructed*** stationary RICE

What are Some Exemptions?

The following stationary RICE are exempt from this rule:

- √ Existing 2SLB stationary RICE
- √ Stationary RICE with site rating of ≤ 500 brake horsepower
- √ Stationary RICE being tested at a stationary RICE test cell/ stand
- √ Existing emergency stationary RICE
- √ Existing limited use stationary RICE
- √ Existing stationary RICE that combust landfill gas or digester gas equivalent to ≥ 10% of the gross heat input on an annual basis

What am I Required To Do?

If you have a **new or reconstructed emergency stationary RICE** or a **new or reconstructed limited use stationary RICE** you are only required to submit an initial notification.

If you have a **new or reconstructed stationary RICE that combusts landfill or digester gas equivalent to ≥ 10% of the gross heat input on an annual basis**, you have to submit an initial notification, and you have to track annual fuel usage and submit annual fuel usage reports.

For each **new or reconstructed 2SLB stationary RICE**, you have the option of doing one of the following:

- **Reducing CO emissions** by ≥ 58% at 100% load ± 10%; OR
- **Limiting the formaldehyde concentration** in the stationary RICE exhaust to ≤ 12 parts per million by volume (ppmv), at 15% O_2 on a dry basis at 100% load ± 10%.
  - ⇒ For new or reconstructed stationary RICE, if you commence construction between December 19, 2002 and June 15, 2004, you have the option of limiting the formaldehyde concentration to ≤ 17 ppmv, at 15% O_2 on a dry basis until **June 15, 2007**. After that date, you have to limit formaldehyde concentration to ≤ 12 ppmv.

Do I have to Install Control Devices?

For each 2SLB stationary RICE you have the option of using an oxidation catalyst or an alternate method of reducing emissions that may or may not include installing a control device.

If you choose to use an oxidation catalyst, you must:

- maintain the catalyst so that the **pressure drop does not change by more than 2 inches of water at ± 10% of 100% load** from the pressure drop during the initial performance test, AND
- maintain the stationary RICE exhaust temperature (all engine loads) so the **catalyst inlet temperature is ≥ 450°F and ≤ 1350°F**

If you do not use an oxidation catalyst, you must:

- establish other operating limitations, which must be approved by the Administrator; OR
- receive permission from the Administrator to have no operating limitations.

Do I Have to Install Monitoring Equipment?

If you do not use an oxidation catalyst and receive permission from the Administrator to have no operating limits, you are not required to install monitoring equipment.

If you do not use oxidation catalyst and have to set operating limits, you must install continuous parameter monitoring systems (CPMS) and monitor the parameters approved by the Administrator.

If you use an oxidation catalyst, you must install a CPMS to continuously monitor the inlet temperature of the catalyst. You also have to measure the pressure drop across the catalyst once a month.

If you are complying with the CO percent reduction emission limit, you have the option of installing a continuous emission monitoring system (CEMS) to monitor CO emissions.

How Do I Show That I am Meeting the Requirements?

You have to conduct an initial performance test, or show that a performance test was conducted less than 2 years before the required date and under the specified conditions in the rule. If you install a CEMS, you have to conduct an initial performance evaluation and use the first 4-hour period of data after a successful validation of the CEMS to demonstrate initial compliance with the CO percent reduction limit.

You also have to conduct semiannual performance tests, unless you have chosen to install a CEMS. If you have installed a CEMS you are not required to conduct semiannual performance tests, but you do have to conduct a relative accuracy test audit (RATA) each year.

You are required to develop a startup, shutdown, and malfunction (SSM) plan. The purpose of the SSM plan is to:

- Ensure that you are operating your control device and monitoring equipment in a safe manner and using good air pollution control practices;
- Ensure you are prepared to correct malfunctions as soon as practicable after they occur to minimize excess emissions; and
- Reduce the reporting burden associated with periods of startup, shutdown, or malfunctions.

You are required to keep records of all activities required to comply with Subpart ZZZZ. The records must be kept for 5 years, and 2 years worth of records must be maintained onsite.

You are required to submit several different notifications and reports to your regulatory authority. These include: initial notification, notification of performance test, notification of compliance status (including performance test results), semiannual compliance reports, and startup, shutdown and malfunction reports.